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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/528,126	03/17/2000	Noriyoshi Satoh	32439	2947

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EXAMINER

ORGAD, EDAN

ART UNIT	PAPER NUMBER
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2618

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/30/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

09/528,126

Applicant(s)

SATO ET AL.

Examiner

Edan Orgad

Art Unit

2618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 3/17/2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION***Response to Arguments***

Applicant's arguments filed 1/11/07 have been fully considered but are not persuasive. Specifically, applicant argues that although Maldonado teaches that the antenna coupler maybe encased in a plastic housing assembly, Maldonado fails to teach an internal antenna disposed on the rear surface of a printed board. Applicant also argues that Maldonado fails to teach at least a part of a printed board, on which an antenna is disposed and is accommodated in a resin housing. Applicant further argues that examiner failed to provide proper suggestion or motivation to combine Maldonado with Jochheim.

Examiner respectfully disagrees. Applicant's claim language is broadly written and fails to define an antenna or an internal antenna. Maldonado antenna coupler is internal and part of an antenna configuration, and clearly works with antenna 204. Therefore, Maldonado antenna coupler is can be referred to as an antenna. Furthermore, examiner is broadly interpreting an "internal antenna" as any part of the antenna that is internal. In other words, since the antenna coupler is internal, it clearly reads on "internal antenna".

Applicant's claim limitation further requires "at least a part of a printed board, on which an antenna is disposed and is accommodated in a resin housing". Maldonado teaches Abutting vertical ground plane portion 104 is positioned in a substantially parallel arrangement with respect to a top surface 200a (see FIG. 1B) of radiotelephone 200 when the radiotelephone is used with the internal antenna coupler 100. Abutting vertical ground plane portion 106 is positioned in a substantially orthogonal position with respect to abutting vertical ground plane portion 104 thus placing abutting vertical ground plane portion 106 in a substantially parallel

Art Unit: 2618

position with respect to a longitudinal axis of antenna 204 (see FIG. 1B). Therefore, Maldonado clearly discloses at least a part of a printed board, on which an antenna is disposed and is accommodated in a resin housing.

Applicant further argues the combination and motivation of Maldonado and with Jochheim housing. Examiner again respectfully disagrees. Jochheim discloses Method for manufacturing a housing part with a screening effect for radio communication equipment while Maldonado discloses is directed to a novel and improved antenna coupler for a portable radiotelephone. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include Moldanado's antenna means with Jochheim's existing radio receiver in order to improve the antenna coupler provided Maldonado and thereby increase RF reception and increase battery life and inherently talk time of the terminal as suggested by Maldonado.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jochheim (US 6,137,050) in view of Maldonado (US 5,852,421).

Regarding claims 1 and 5, Jochheim teaches a radio terminal device (fig. 1) having:

Art Unit: 2618

a printed board having a front surface and a rear surface (fig. 1, element 7);

a resin housing covering the rear surface of the printed board (element 5: Jochheim describes the process of making the covering is done with an injected mold, inherently a plastic or some sort of a resin);

a metal housing covering the front surface of the printed board (element 6 & col. 2, lines 13-16 and lines 60-67, specifically, a metal wire weave is injected into element 6);

Jochheim fails to specifically disclose an internal antenna disposed on the rear surface of the printed board wherein at least a part of the printed board, on which the antenna is disposed, is accommodated in the resin housing.

In related art, Maldonado teaches an internal antenna disposed on the rear surface of the printed board wherein at least a part of the printed board, on which the antenna is disposed, is accommodated in the resin housing (col. 7, lines 25-28).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include Moldanado's antenna means with Jochheim's existing radio receiver in order to improve the antenna coupler provided Maldonado and thereby increase RF reception and increase battery life and inherently talk time of the terminal as suggested by Maldonado.

Regarding claims 2 and 6, Jochheim teaches the resin housing and the metal housing are joined with each other by a curved line from a view point of the side of the radio terminal device (figures 1 and 2, element Y).

Art Unit: 2618

Regarding claims 3 and 7, Jochheim as modified by Maldonado further teaches the printed board and the metal housing are connect with each other electrically (Maldonado, fig. 1b, & col. 4, lines 48-50).

Regarding claims 4 and 8, Jochheim fails to specifically disclose the antenna is disposed near an end portion in the remaining part of the printed board. However, Maldonado does disclose the antenna is disposed near an end portion in the remaining part of the printed board (fig. 1b; col. 7, lines 25-28). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include Maldonado antenna means with Jochheim's existing radio receiver in order to increase RF reception.

Regarding claim 9, Jochheim as modified by Maldonado teach the antenna is accommodated in the resin house (Maldonado: col. 7, lines 25-28).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edan Orgad whose telephone number is 571-272-7884. The examiner can normally be reached on 9:00AM to 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban can be reached on 571-272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications

Art Unit: 2618

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

EDAN ORGAD
PRIMARY PATENT EXAMINER

Edan Orgad 3/27/07